

WHAT IS CLAIMED IS:

- 1 . At least one MUT-IL-13 nucleic acid, comprising or
complementary to at least one polynucleotide encoding the amino acid sequence of SEQ ID
5 NO:1, or at least one substitution mutant protein thereof selected from at least one of Ile48,
Val48, Gln90, Glu90, Leu95, Ile95, Leu96, Ile96, Leu99, Ile99, Phe103, or Tyr103.
- 2 . At least one MUT-IL-13 nucleic acid, comprising or
complementary to at least one polynucleotide encoding the amino acid sequence of SEQ ID
10 NO:1, or at least one substitution mutant protein thereof selected from at least one of Gln130 or
Asn130.
- 3 . At least one MUT-IL-13 nucleic acid, comprising at least one
polynucleotide encoding at least one MUT-IL-13 polypeptide, comprising at least one
polypeptide having at least 90-99% identity to an amino acid sequence comprising all of the
contiguous amino acids of SEQ ID NO:1, or at least one substitution mutant protein thereof
15 selected from at least one of Ile48, Val48, Gln90, Glu90, Leu95, Ile95, Leu96, Ile96, Leu99,
Ile99, Phe103, or Tyr103.
- 4 . At least one MUT-IL-13 polypeptide, comprising all of the
contiguous amino acids of SEQ ID NO:1, or at least one substitution mutant protein thereof
selected from at least one of Gln130 or Asn130.
- 20 5 . At least one MUT-IL-13 polypeptide, comprising at least 15
contiguous amino acids of SEQ ID NO:1, or at least one substitution mutant protein thereof
selected from at least one of Ile48, Val48, Gln90, Glu90, Leu95, Ile95, Leu96, Ile96, Leu99,
Ile99, Phe103, or Tyr103.
- 6 . A MUT-IL-13 antibody, comprising a monoclonal or
25 polyclonal antibody, fusion protein, or fragment thereof, that specifically binds at least one
MUT-IL-13 polypeptide according to any of claims 4-5.
- 7 . A MUT-IL-13 nucleic acid encoding at least one MUT-IL-13
polypeptide or MUT-IL-13 antibody according to any of claim 3-5.
- 8 . A MUT-IL-13 vector comprising at least one isolated nucleic
30 acid according to any of claims 1-2.
- 9 . A MUT-IL-13 host cell comprising an isolated nucleic acid
according to claim 8.
- 10 . A MUT-IL-13 host cell according to claim 9, wherein said
host cell is at least one selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2,
35 653, SP2/0, 293, NSO, DG44 CHO, CHO K1, HeLa, myeloma, or lymphoma cells, or any
derivative, immortalized or transformed cell thereof.

- 11 . A method for producing at least one MUT-IL-13 polypeptide or MUT-IL-13 antibody, comprising translating a nucleic acid according to claims 1-2 under conditions in vitro, in vivo or in situ, such that the MUT-IL-13 polypeptide is expressed in detectable or recoverable amounts.
- 5 12 . A composition comprising at least one MUT-IL-13 nucleic acid, MUT-IL-13 polypeptide, or MUT-IL-13 antibody according to any of claims 3-5.
- 13 . A composition according to claim 12, wherein said composition further comprises at least one pharmaceutically acceptable carrier or diluent.
- 10 14 . A composition according to claim 12, further comprising at least one composition comprising an therapeutically effective amount of at least one compound, composition or polypeptide selected from at least one of a detectable label or reporter, a TNF antagonist, an anti-infective drug, a cardiovascular (CV) system drug, a central nervous system (CNS) drug, an autonomic nervous system (ANS) drug, a respiratory tract drug, a gastrointestinal (GI) tract drug, a hormonal drug, a drug for fluid or electrolyte balance, a
- 15 hematologic drug, an antineoplastic, an immunomodulation drug, an ophthalmic, otic or nasal drug, a topical drug, a nutritional drug, a cytokine, or a cytokine antagonist.
- 15 . A composition according to claim 12, in a form of at least one selected from a liquid, gas, or dry, solution, mixture, suspension, emulsion or colloid, a lyophilized preparation, a powder.
- 20 16 . A method for diagnosing or treating a MUT-IL-13 related condition in a cell, tissue, organ or animal, comprising
- (a) contacting or administering a composition comprising an effective amount of at least one MUT-IL-13 nucleic acid, polypeptide or antibody according to any of claims 1-5, with, or to, said cell, tissue, organ or animal.
- 25 17 . A method according to claim 16, wherein said effective amount is 0.001-50 mg of MUT-IL-13 antibody; 0.000001-500 mg of said MUT-IL-13; or 0.0001-100µg of said MUT-IL-13 nucleic acid per kilogram of said cells, tissue, organ or animal.
- 30 18 . A method according to claim 16, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal,
- 35 intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, intralesional, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

19 . A method according to claim 16, further comprising administering, prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or polypeptide selected from at least one of a detectable label or reporter, a TNF antagonist, an anti-infective drug, a
5 cardiovascular (CV) system drug, a central nervous system (CNS) drug, an autonomic nervous system (ANS) drug, a respiratory tract drug, a gastrointestinal (GI) tract drug, a hormonal drug, a drug for fluid or electrolyte balance, a hematologic drug, an antineoplastic, an immunomodulation drug, an ophthalmic, otic or nasal drug, a topical drug, a nutritional drug, a cytokine, or a cytokine antagonist.

10 20 . A device, comprising at least one isolated MUT-IL-13 polypeptide, antibody or nucleic acid according to any of claims 1-5 wherein said device is suitable for contacting or administering said at least one of said MUT-IL-13 polypeptide, antibody or nucleic acid, by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular,
15 intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, intralesional, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

20 21 . An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising at least one isolated MUT-IL-13 polypeptide, antibody or nucleic acid according to any of claims 1-5.

 22 . The article of manufacture of claim 21, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular,
25 intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, intralesional, bolus, vaginal, rectal, buccal, sublingual,
30 intranasal, or transdermal delivery device or system.

 23 . A method for producing at least one isolated MUT-IL-13 polypeptide, antibody or nucleic acid according to any of claims 1-5, comprising providing at least one host cell, transgenic animal, transgenic plant, plant cell capable of expressing in detectable or recoverable amounts said polypeptide, antibody or nucleic acid.

35 24 . At least one MUT-IL-13 polypeptide, antibody or nucleic acid, produced by a method according to claim 23.